

Health Education for the Prevention of Hypertension in Elderly RW 11 Jayagiri Village, Lembang District, West Bandung Regency

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Abstract

The purpose of this activity is to plan community service activities to solve problems obtained based on situation analysis on problem prioritization by providing health education to the community to always maintain health. The method used consists of preparation, implementation, and closing. The implementation was carried out by means of counseling which took place at the RW 11 mosque, Jayagiri Desara Village, Lembang District, West Bandung Regency, which was attended by 36 participants and could be carried out well and smoothly and conducive from the beginning to the end of the activity. The results obtained are that the community's understanding of the meaning, causes, symptoms, prevention, treatment, and impact of hypertension has increased. This community service activity is expected to provide tangible benefits to the Jayagiri Village community and become an inspiration for similar efforts in various other areas.

A. Introduction

Hypertension, sometimes referred to as high blood pressure, is a medical disease that significantly increases the risk of having heart, brain, kidney, and other complications (Kim et al., 2023). As the world's population ages, frailty and hypertension are becoming more common (Shantsila et al., 2023). Globally, 31.1% of individuals suffer from hypertension, with the elderly having a higher prevalence of above 60% (Wu et al., 2023). Heart failure, atrial fibrillation, and stroke are examples of cardiovascular disorders for which hypertension is known to be a significant risk factor. The development of these conditions can lead to a deterioration in health and/or increase the degree of frailty (Guasti et al., 2022). Hypertension is one of the primary risk factors for cardiovascular disease (CVD), the major cause of death worldwide (Baffour-Awuah et al., 2020). As one of the primary causes of mortality and morbidity, according to the Indonesian Association of Cardiovascular Specialists, hypertension management is a highly common intervention performed at various levels of health facilities (Delavar et al., 2020).

Hypertension or commonly called the silent killer is a disease that comes without the onset of symptoms (Siregar, 2022; Sofiana, 2020). Based on 2018 measures, the Basic Health Research (Riskesdas) statistics indicate that the national prevalence rate of hypertension in the population over the age of 18 rose to 34.11% from 25.8% in 2013 (Hapsari et al., 2020).

The age range of 60 years and above represents the end of the aging process, which affects three domains: social, economic, and biological. The biological aging process that occurs in senior people is marked by a decline in physical endurance and an increased vulnerability to illness assaults (Akbar et al., 2021).

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According to Putri et al. (2021) one of the most susceptible demographics with a higher chance of health issues is the elderly. The risk of hypertension generally increases with age (Adam, 2019). Decreased heart pumping capacity, thickening of the heart valves (causing the valves to become stiff), loss of aortic wall elasticity, increased peripheral vascular resistance, and diminished heart pumping ability are the main causes of hypertension in the elderly. According to Zhu et al. (2022), the impairment of the body's work function is the cause of hypertension in the aged population.

As a noble responsibility and a means of spreading the Tri Dharma of Higher Education, community service involves institutionally implementing science, technology, and cultural arts practices directly in the community through scientific methodology. The goal is to build community capacity and accelerate growth to meet national development goals (Gorda et al., 2022). According to Law Number 12 of 2012 concerning Higher Education Articles 47 and 48, community service activities conducted by the Immanuel Institute of Health (IKI) are academic community activities that are required to be carried out annually by cross-study programs under the auspices of the IKI research and community service institution (LPPM). The purpose of these activities is to practice and cultivate science, knowledge, and technology in the health sector to advance general welfare and educate the nation's life.

This year (2023) the academic community of IKI in Jayagiri Village, Lembang District, West Bandung Regency, conducted community service projects. Groups of seven working groups, comprising lecturers between study programs and students, carry out community service projects. Every working group has a specific RW in Jaya Village that they are responsible for maintaining through community activities. Within the Lembang sub-district of West Bandung Regency, Jaya Giri Village occupies an area of 9.26 km² and is home to 18,547 people, of which 9320 are men and 9227 are women. The average occupation of the population is that of farmers, ranchers, laborers, and private employees, with 11181 people working in the community economy, 977 people attending school and not working, 4052 housewives, 2189 people fully employed, and 2263 people working indefinitely.

Working Group 4 is assigned to carry out community service activities in the RW 11 area which consists of 4 RTs with 357 families and 1236 people. Based on the situation analysis from the initial survey data of community service activities, several health problems were obtained in RW 11, namely: 38% of family members have been diagnosed with high blood pressure / hypertension, 23% of residents take high blood pressure / hypertension medication regularly.

From the analysis of the health situation in the RW 11 area, it can be concluded that there are several important things that need to be intervened in the community to increase their knowledge and education in the health sector.

Therefore, Pokja 4 conducted community service activities through a planning, implementation and evaluation process, for approximately 2 months, starting from August to September. With direct implementation in the field in the form of health education / knowledge improvement activities on September 6, 2023.

B. Research Methods

The implementation of activities that have been carried out in accordance with the planned time, namely activities carried out in August-October consisting of preparation, implementation and closing. Preparations were carried out with various activities, including field surveys, problem identification, approaches to the community, situational analysis, preparation of proposals carried out in August 2023. Implementation was carried out in September, with activities to prepare extension activities and counseling through the delivery of material on hypertension. closing activities are carried out by preparing reports.

The purpose and objective of this activity is to plan community service activities to solve problems obtained based on situational analysis on the priority problems obtained by providing health education to the community to always maintain their health. The target number of this community service activity is 40 people, consisting of elements: Jayagiri Village community, especially in RW 11, health cadres, village government and related agencies, and community leaders.

C. Result and Discussion

After conducting a situational analysis in RW 11, several health problems that require health interventions were identified. The problems obtained from the identification results are: 1) 29% smoker distribution (but 92% are aware of not smoking in the house), 2) Not using clean water 25%, 3) Family members have been

diagnosed with high blood pressure / hypertension 38%, 4) Distribution of taking high blood pressure / hypertension medication regularly 23%. From these several problems, another analysis was carried out to narrow down the problem by examining the urgency and magnitude of the problem so that a priority problem was obtained for RW 11. 38% of family members had been diagnosed with high blood pressure / hypertension. So for these two problems, working group 4 took the initiative to solve these problems by conducting counseling activities.



Figure 1. Blood Pressure Check

The implementation of counseling was carried out on Wednesday, September 6, 2023, from 11:00 to 15:00 consisting of preparation of tools, places, implementation and closing. The activity was held at the RW 11 mosque which was attended by 36 participants out of 40 expected target participants (90% of participants) consisting of elements: RW, RT, cadres, and the general public. The material presented during counseling, namely understanding of hypertension, understanding the impact of risks, understanding how to prevent hypertension, and understanding of hypertension treatment.



Figure 2. Implementation Of Hypertension Counseling Activities In The Elderly

The results obtained were that the community's understanding of the meaning, causes, symptoms, prevention, treatment, and impact of hypertension had increased. The number of respondents was 29 people, with answers considered valid by 28 respondents Community understanding along with topics of understanding, before counseling and after counseling as follows:

Table 1. Participants' Understanding Before And After Counseling

No.	Topic Understanding	Before	After	+ / -
1	Understanding of the definition of hypertension	79%	86%	7%
2	Understanding of the causes of hypertension	36%	46%	11%
3	Understanding of the signs and symptoms of hypertension	11%	36%	25%
4	Understanding of prevention of hypertension	14%	36%	21%
5	Understanding of hypertension treatment	86%	89%	4%
6	Understanding of the effects of hypertension	36%	46%	11%

Table 1 shows the results regarding the understanding of counseling participants before and after counseling. Understanding of the definition of hypertension before counseling 79% after 86%. Understanding of the causes of hypertension before counseling 36% after 46%. Understanding of the symptoms of hypertension before counseling 11% after 36%. Understanding of the prevention of hypertension before counseling 14% after 36%. Understanding of hypertension treatment before counseling 86% after 89%. Understanding of the impact of hypertension before counseling 36% after 46%.

The results of community service from Arif Irpan Tanjung, et al stated that the elderly can do elderly fitness exercises on changes in blood pressure reduction in elderly hypertension (Zhu et al., 2022). In line with this, Delavar et al. (2020) found the results that from community service activities there was an increase in the understanding of health cadres related to Hypertension Disease, especially efforts to prevent and control hypertension in the elderly in Sukosari Hamlet, Pandansari Village, Poncokusumo District, Malang Regency. Meanwhile, the study used a true experiment design method by distributing leaflets door to door and complying with government health protocols. With stages, pretest, counseling on prevention and treatment of hypertension to improve quality of life in old age, questions and answers between presenters and participants, then Posttest and evaluation of activities. The results showed that there was an increase between the pre-test value and the post-test value (Zheng et al., 2021).

D. Conclusion

The implementation of community service activities regarding Health Education Education on the prevention of hypertension in the elderly RW 11 Jayagiri Village, Lembang District, West Bandung Regency can be carried out well and smoothly and conducive. The results showed that the community's knowledge about the meaning, causes, symptoms, prevention, treatment, and impact of hypertension had increased. This community service activity is expected to bring real benefits to Jayagiri villagers and become an inspiration for similar efforts in various regions.

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